

REMARKS

Upon entry of this amendment, claims 1-9 will be pending. Of those, claims 1 and 8 are independent. By this reply, new dependent claim 9 has been added.

Drawing Objections

The drawings stand objected to by the Examiner.

Under item 2 of the Office Action, Fig. 8 is objected to because elements 803-806 are not mentioned in the specification while Figs. 9A and 9B are objected to because elements 902-906 and in 912-916 are not mentioned in the specification. By this reply, Applicants have added brief descriptions of elements 803-806 and 902-906 to the specification. As discussed below, item numbers 912-916 have been deleted. Accordingly, withdrawal of this objection to the drawings is requested.

Under item 3 of the Office Action, the drawings were objected to because the Examiner interprets Figs. 9A and 9B as being duplicates. Applicants traverse. Closer inspection of Figs. 9A and 9B will reveal that Fig. 9A is directed toward vacuum testing while Fig. 9B is directed toward scan testing, hence they are not duplicates.

But, upon reconsideration, Applicants submit that Fig. 9B is a substantive duplicate of Fig. 4 (but not a literal duplicate). In the spirit of responding to the Examiner's objection to Figs. 9A and 9B, Applicants propose amending the drawings as follows. Fig. 9B has been cancelled in its entirety. Fig. 9A has been changed to Fig. 9, and the legend "Specified behaviour (vacuum and scan testing)" has been deleted from Fig. 9 (formerly Fig. 9A). See also the attached mark-ups of Figs. 9A and 9B showing the changes in red. In addition, Applicants have made clarifying changes to the specification that keep the language of the specification commensurate with having deleted Fig. 9B and renamed Fig. 9A as Fig. 9. Approval by the Examiner of these drawing changes, and withdrawal of the related drawing objection, is requested.

In a letter submitted concurrently with this document, Applicants have submitted formal drawings incorporating the changes to Figs. 9A and 9B (described above) to the official Draftsperson.

Claim Rejections Under 35 U.S.C. §112

Claim 5 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter.

The Examiner has maintained the rejection of claim 5 under §112, second paragraph because of the continued belief that claim 5 is inconsistent with claim 1, which renders claim 5 indefinite. In particular, the phrase "while not impeding each individual process during an operation of claim 1 is the Examiner's perceived cause of the indefiniteness. Accordingly, by this reply, Applicants have deleted that phrase from independent claim 1. Also, Applicants have clarified claim 5 such that it now recites "said validation result can indicate that one or more of said individual processes is an impeding process,".

In view of the foregoing discussion, withdrawal of this rejection is requested.

Also by this amendment, Applicants have made some clarifying changes to claims 4, 6 and 7. As to claims 4 and 6, the changes restore claims 4 and 6 to a state that more closely corresponds to the state of the claims prior to the Preliminary Amendment of January 3, 2001. In claim 7, the phrase "with data" has been changed to --with the data-- in order to emphasize antecedent basis for the phrase "data determines".

Claim Rejections Under 35 U.S.C. §102

Beginning on page 3 of the Office Action, the rejection of claims 1-4 and 6-8 under 35 U.S.C. §102(b) over U.S. Patent No. 5,742,823 to Edwards et al. (hereafter, the Edwards patent) is maintained. Beginning on page 6 of the

Office Action, the Examiner's rebuttal remarks regarding the rejection over the Edwards patent are presented. Applicants continue to traverse.

In the rebuttal comments, the Examiner has directed Applicants' attention to Fig. 6 of the Edwards patent as well as the corresponding description at lines 24-26 of column 12. Applicants are willing to assume for the sake of argument that the Edwards patent briefly discloses some semblance of a design process, but Applicants submit that the thrust of the Edwards patent is directed toward ensuring the fail-safe operation of a process after it has been designed. For example, lines 24-29 of column 2 state:

Once [i.e., after] a system is configured to execute a particular job or process specified in a process network structure or directed graph, the process continues according to the invention as a direct flow of data between processor elements, without interruption or intervention by control, until job completion or the occurrence of some air condition.

Moreover, the Edwards patent is especially concerned with preventing interruption due to a failure of one of the processing elements 20. Lines 49-53 of column 2 state:

The processor system according to the invention may preferably further include means for detecting an inoperative processing element, and for automatically replacing said failed processing element, preferably without an interruption in execution of said process.

Similarly, lines 9-17 of column 5, state (underlined emphasis added):

Application controller 14 is also preferably configured in accordance with the invention to detect a field or inoperative element 20 and to substitute a new element 20 into the logical structure of a process being executed so as to continue execution of the process, preferably without significant interruption of same. This may be accomplished, for example, by monitoring elements 20 involved in the execution of a particular process to insure that all elements are receiving and shipping input data and output data values as desired.

This is also echoed at lines 58-65 of column 7, which state:

Advantageously, system 10 according to the invention is configured to automatically remove an inoperative processing element, without requiring system shutdown, and to logically replace any inoperative processing element 20 within a process network structure with further processing elements 20 as needed. Thus, the failure of a particular element 20, even during execution of a process, does not significantly impair the operation of system 10.

Applicants reiterate that the thrust of the Edwards patent is directed toward a monitoring system that identifies failure of a processing element and replaces it in a manner that avoids system interruption and/or shutdown.

As noted, the Examiner has drawn Applicants' attention to lines 24-26 of column 12 as part of the rebuttal. It is informative to consider lines 32-47, which follow lines 24-26 in column 12, and which state:

When execution of process 250 is to begin, the specification of process 250 is analyzed to determine the data input requirements 252 and data output requirements 254 thereof. Responsive to controller 14, queue analyzer and generator facility 18 builds appropriate queues and signals information storage facility 200 to prepare copies of specified data for the queues, for example copies of data input a, b, and c. Further, application analyzer and setup facility reads the process specification and breaks process 250 into process functions 256, 258 and 260 and assigned each process function to one or more processor elements 20, along with information regarding the process network structure, especially information with respect to predecessor and successor processor elements 20 with respect to a particular element 20, which network structure is preferably included with specification of process 250.

Nothing about the above-quoted lines 32-47, nor anything else in the Edwards patent, indicates any contemplation that there could be an impediment to the functions 256, 258 and 260 (into which process 250 is broken), nor any contemplation that functions 256, 258 and 260 could possibly occupy anything other than authorized states. Rather, it is assumed that there are no such impediments and that only authorized states can be occupied. Because of that

assumption, the Edwards patent never tests the future interplay of the functions 256, 258 and 260.

In contrast, amended independent claim 1 recites performing a validation by automatically verifying future interplay of said functionalities in accordance with an input to said complete process and producing a validation result. Such a result, for example, could indicate success or could indicate that such future interplay will exhibit problems, e.g., in the form of a first one of the individual processes impeding a second one of the individual processes and/or one or more of the individual processes occupying something other than an authorized state. As explained above, the Edwards patent does not perform a validation by automatically verifying future interplay of the functionalities in accordance with an input to said complete process. Why? Answer: There is no need for validation where nothing other than a successful future interplay of functionality is contemplated.

A corresponding distinction in amended independent claim 8 over the Edwards patent is the processor unit configured to provide a validation, by automatically verifying future interplay of functionalities in accordance with an input to said complete process. Claims 2-4 and 6-7 depend from claim 1 and possess at least the distinction noted above by dependency.

Under U.S. law, a reference anticipates a claim if all elements of the claims are disclosed by the reference. Here, at least one element of each of claims 1-4 and 6-8 is not disclosed by the Edwards patent. Accordingly, the Edwards patent does not anticipate claims 1-4 and 6-8.

In view of the foregoing discussion, the §102(b) rejection of claims 1-4 and 6-8 over the Edwards patent is improper and Applicants request that it be withdrawn.

New Claim 9

Again, by this reply claim 9 has been added. Claim 9 depends from claim 1 and is patentable at least for the same reasons, by dependency.

CONCLUSION

The issues in the case are considered to be resolved. Accordingly, Applicants again request a Notice of Allowability.

Person to Contact

In the event that any matters remain at issue in the application, the Examiners are invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By

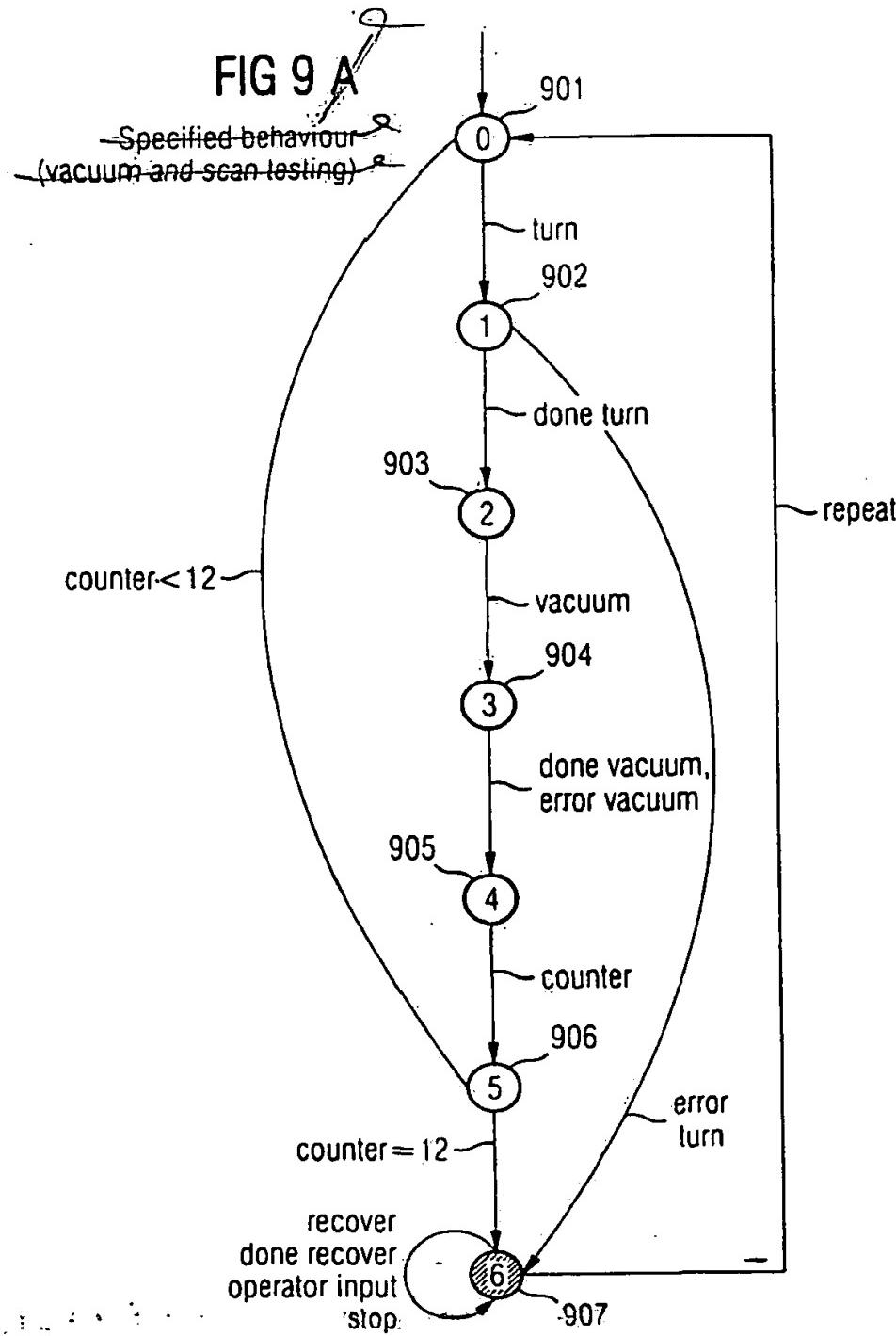

Thomas S. Auchterlonie
Thomas S. Auchterlonie, Reg. No. 37,275
P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

DJD/TSA:dg



8/11

FIG 9 A





9/11

FIG 9 B

Specified behaviour
(vacuum and scan testing)

